

S/N 10/707,618

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Aaron Golle et al.

Examiner: Jason M Han

Serial No.: 10/707,618

Group Art Unit: 2875

Filed: December 24, 2003

Docket No.: 1748.005US1

Title: MULTI-COLORED EL SAFETY SIGN

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

This responds to the Office Action mailed on September 14, 2005. Please amend the above-identified patent application as follows.

This response is accompanied by a Petition, as well as the appropriate fee, to obtain a 3-month extension of the period for responding to the Office Action, thereby moving the deadline for response from December 14, 2005 to March 14, 2006.

IN THE DRAWINGS

Corrected drawings are supplied herewith. Enclosed is a Replacement Sheet showing the following amendment to Figure 15. The reference numerals on the left side of the drawing have been completed, as required by the Office Action.

IN THE SPECIFICATION

Please insert the following text on page 1, directly after the title:

Cross-Reference to Related Application

The present application is a Continuation-In-Part of U.S. Serial No. 10/645,873, which is incorporated herein by reference.

Paragraph 28 is amended as follows:

Figure 1 shows a safety sign 100 utilizing ~~electro-luminescent~~ electroluminescent (EL) technology. A conducting base 110 is shown with a dielectric layer 120 coupled to the conducting base 110. The base is for some embodiments rigid and for other embodiments flexible. This feature enables the sign to be positioned on rigid or flexible surfaces. A number of encapsulated phosphor portions 130 are shown coupled to the dielectric layer 120. In one embodiment, the number of encapsulated phosphor portions 130 are microencapsulated. A second conducting portion 140 is shown coupled over the number of encapsulated phosphor portions 130. In one embodiment, the second conducting portion 140 includes a transparent conductor material. In one embodiment, an encapsulating layer 150 is included over the second conducting portion 140. In one embodiment, the encapsulating layer 150 is included to provide moisture or weather resistance. A pattern layer 160 is further shown coupled over the encapsulating layer 150. In one embodiment, the pattern layer 160 defines a message or symbol that indicates safety or caution.

Paragraph 31 is amended as follows:

Figure 3 shows an embodiment of a safety sign 300. The safety sign 300 includes an EL lighting surface 310, and a power source 312 coupled to the EL lighting surface [[210]] 310. Power source 312 includes, but is not limited to embodiments of power sources described above. A layer 320 is also included, with a pattern 322 located on the layer 320. In Figure 3, the layer 320 includes a substantially opaque layer. The pattern 322 in Figure 3 is substantially transparent. In one embodiment, the pattern 322 is cut out from the layer 320. Pattern 322 includes, but is not limited to embodiments of patterns described above. The safety sign 300

operates by transmitting light from the EL lighting surface 310 through the substantially transparent pattern 322.

Paragraph 36 is amended as follows:

Figure 6 shows one embodiment of a safety sign 600. The safety sign 600 includes an EL lighting surface 610. In one embodiment the shape of the safety sign 600 is dictated by a government standard. In Figure 6, the EL lighting surface 610 of the safety sign 600 is substantially rectangular in shape. In Figure 6, a width 612 of the EL lighting surface 610 is approximately 72 inches. In Figure 6, a height 614 of the EL lighting surface 610 is approximately 8.5 inches. A pattern 616 is included on the safety [[sing]] sign 600 similar to embodiments described above. In one embodiment the pattern includes a text message that states "Stay Back - Stay Alive." In one embodiment the pattern includes a text message that states "Oversized Load, as shown at 1210 in FIG. 12." Any number of safety messages are possible within the scope of the invention. In addition to text, as described above, shapes or symbols are also possible to convey a message of safety. For example, a triangle may be used to indicate a slow moving vehicle, as shown at 1310 in FIG. 13.

Paragraph 42 is amended as follows:

A method of improving safety of snow plows and motor vehicles in hazardous visibility conditions, such as a snowstorm snowstorm, is shown in FIG. 11. The snowplows 1100 include EL lighting 1102 on the cabs, 1104 on the mudflaps and 1106 on the trailer. The snowplows also include EL lighting on the [[real]] rear of the trailer and, optionally, on mudflaps in the rear of the trailer, which are not shown.

Paragraph 45 is amended as follows:

Further, because EL lighting generates light from encapsulated portions along a large area (such as 72 inches by 8.5 inches) the light provided by the EL lighting is not a point source, but is an area source. This reduces or eliminates night blinding, blinding and flicker produced by point sources such as incandescent lights, and LEDs. Further, the area source of EL lighting can be seen from farther away, and through difficult conditions such as snow, dust, fog, etc. This is

due to EL lighting providing numerous sources (an area of sources) of light to compensate for scattering and dispersement of light from any one individual source in the EL surface.

IN THE CLAIMS

Please amend claim 1 and cancel claims 2, 5-9, 13-14 and 17-20.

Please amend the claims as follows:

1. (Amended) An EL sign for use on a vehicle comprising an EL illuminated color and a non-illuminated color, and further including a yellow layer that imparts a yellow tint to the sign in daylight when the EL is non-illuminated and a light green appearance at night when the EL is illuminated.
2. (Cancelled)
3. (Original) The EL sign of claim 1 wherein the non-illuminated color is effective for signaling a safety message in daylight.
4. (Original) The EL sign of claim 1 wherein the illuminated color is effective for signaling a safety message in the dark or other conditions of poor visibility.
- 5-9. (Cancelled)
10. (Original) The EL sign of claim 1, further comprising safety indicia defined by the illuminated color.
11. (Original) The EL sign of claim 1, further comprising safety indicia defined by the non-illuminated color.
12. (Original) The EL sign of claim 1, further comprising safety indicia defined by the illuminated color and the non-illuminated color.

13-14. (Cancelled)

15. (Original) The EL sign of claim 1, wherein the EL lighting is static.

16. (Original) The EL sign of claim 1, wherein the EL lighting is blinking.

17-20. (Cancelled)

REMARKS

This responds to the Office Action mailed on September 14, 2005.

Claim 1 is amended and claims 2, 5-9, 13-14 and 17-20 are canceled; as a result, claims 1, 3-4, 10-12 and 15-16 are now pending in this application.

Priority Claim

The Office Action objected to Applicants' priority claim as listed on the Declaration that was filed together with the application. Applicant has amended the specification herein to include the claim of priority to U.S. Serial No. 10/645,873. Applicants' priority claim was recognized by the Office as shown by its inclusion on the first filing receipt, and as such Applicants believe that the amendment to the specification is sufficient, and that no further action is required.

Declaration and Power of Attorney

A new oath or declaration was required in compliance with 37 C.F.R. 1.67(a). A newly executed Declaration (and Power of Attorney) identifying this application by application number and filing date was filed December 9, 2005, a copy of which accompanies this response.

Objection to the Drawings

The drawings were objected to as having incomplete reference numbers in Figure 15. The reference numerals have been corrected on the Replacement drawing sheets submitted herewith.

Objections to the Specification

The specification was objected to due to typographical and grammatical errors. The specification is amended herein as requested by the Examiner.

Objection to the Claims

Claim 5 was objected to for lack of antecedent basis. Applicant has cancelled claim 5.

Claim 11 was objected to due to a typographical error. Applicant has not found this typographical error in claim 11, but assumes that the Examiner's objection should apply instead to claim 13. Claim 13 has been cancelled.

Citation of References on PTO 892 Form

Applicant notes that the Examiner has relied upon US Patent 5,533,289 for the rejections in this Office Action. However, the patent to Hoffman was not listed on the Examiner's 892 Form. Applicant respectfully requests that the Hoffman reference be listed on an 892 Form with the next Office Action, so that the reference is officially made of record.

§112 Rejection of the Claims

Claims 8, 14, and 19 were rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness. These claims have been cancelled.

§102 Rejection of the Claims

Claims 1-4, 9-13, and 15-16 were rejected under 35 U.S.C. § 102(b) for anticipation by Hoffman (U.S. 5,533,289). These rejections are no longer applicable due to the amendment of claim 1 and the cancellation of other claims.

§103 Rejection of the Claims

Claims 5-8, 14, and 17-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hoffman. Claim 1 has been amended to now recite:

1. (Amended) An EL sign for use on a vehicle comprising an EL illuminated color and a non-illuminated color, and further including an EL lighting element that is white in a non-illuminated condition and blue-green in an illuminated condition, and a yellow layer that imparts a yellow tint to the sign in daylight when the EL lighting element is non-illuminated and a light green appearance at night when the EL lighting element is illuminated.

The office action admits that imparting a yellow tint to the sign in daylight when the EL is non-illuminated and a light green appearance at night when the EL is illuminated. The office action goes on to say that it would be a matter of design choice to provide this color functionality by using a yellow layer in combination with the EL lighting element. Claim 1 as now amended further includes the limitation that there is an EL lighting element that is white in a non-illuminated condition and blue-green in an illuminated condition. This combination is no where taught in Hoffman and further it is the Applicants' position that it is not an obvious design choice. Prior to the Applicants' disclosure, there was no teaching as to actual sign color combinations as claimed that would be effective for application to vehicles. Hoffman itself makes no mention of using a yellow layer, or providing a green color for night time viewing. Further, it does not discuss how to obtain a yellow color in the day with a white EL color in non-illuminated condition with a yellow layer, and to obtain a green illuminated color at night by using a white EL color that illuminates as a blue-green color to provide the green color at night. This is a novel and inventive manner to provide a highly useful EL sign for a vehicle, and Hoffman provides no teaching for the same. Accordingly, the Applicant respectfully requests that claim 1 and its dependent claims that add additional patentable limitations, all be allowed.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6976 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

AARON GOLLE ET AL.

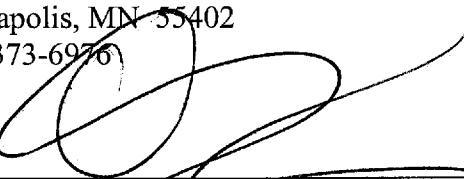
By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
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Date

2/12/2006

By


Steven W. Lundberg
Reg. No. 30,568

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 16 day of February, 2006.

Name

John D. Gruber-Watthull

Signature

